

SECTION III—REMARKS

This amendment is submitted in response to the Office Action mailed September 9, 2004. Claims 7-8 and 17-18 are canceled. Claims 1-6, 9-16, 19 and 38-51 remain pending in the application. Applicants respectfully request reconsideration of the application and allowance of all pending claims in view of the above amendments and the following remarks.

Claim Objections

The Examiner objected to claim 17 and required that the term “electrically” be replaced with the term “thermally.” Applicants respectfully submit that the Examiner’s objections are rendered moot by the cancellation of the claim.

Rejections Under 35 U.S.C. § 102

The Examiner rejected claims 1-3, 5, 7-8, 10-13, 15, 17-18, 38-39, 41 and 44-47 as anticipated under 35 U.S.C. § 102(b) by U.S. Patent No. 6,340,846 to LoBianco (“LoBianco”). Applicants respectfully traverse the Examiner’s rejections. A claim is anticipated only if each and every element, as set forth in the claim, is found in a single prior-art reference. MPEP § 2131; *Verdegaal Bros. v. Union Oil of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). As explained below, LoBianco cannot anticipate these claims because it does not disclose every element and limitation recited therein.

Claim 1 recites an apparatus combination including a die mounted on a substrate, the die being connected to the substrate by a plurality of wires, and a mold cap encapsulating the die and the plurality of wires, the mold cap comprising an electrically insulating portion encapsulating substantially all the wires and the die, and “a thermally conductive portion encapsulating substantially all the electrically insulating portion.” LoBianco discloses only that a plastic cap 60 is formed over the dies 14 and 16 and the adhesive 46. It does not disclose, teach or suggest that the plastic cap 60 should be thermally conductive, and therefore cannot disclose, teach or suggest a combination including “a thermally conductive portion encapsulating substantially all the electrically insulating portion.” Applicants submit that LoBianco therefore cannot anticipate the claim and respectfully request withdrawal of the rejection and allowance of the claim.

Regarding claims 2, 3, 5 and 7-8, if an independent claim is allowable, then any claim depending therefrom is also allowable. *See, e.g.*, MPEP § 2143.03; *In re Fine*, 837 F.2d 1071

(Fed. Cir. 1988). As discussed above, claim 1 is in condition for allowance. Applicants submit that claims 2, 3, 5 and 7-8 are therefore allowable by virtue of their dependence on an allowable independent claim, as well as by virtue of the features recited therein. Applicants therefore respectfully request withdrawal of the rejections and allowance of these claims.

Claim 10 recites an apparatus combination including a stack of dies mounted on a substrate, and a mold cap encapsulating the wires and the stacked dies, the mold cap comprising an electrically insulating portion encapsulating substantially all of the wires and the stacked dies and “a thermally conductive portion encapsulating substantially all the electrically insulating portion.” By analogy to the discussion above for claim 1, Applicants submit that LoBianco does not disclose every element and limitation of this claim and therefore cannot anticipate the claim. Applicants therefore respectfully request withdrawal of the rejection and allowance of the claim.

Regarding new claims 11-13, 15 and 17-18, if an independent claim is allowable, then any claim depending therefrom is also allowable. *See, e.g.*, MPEP § 2143.03; *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). As discussed above, claim 10 is in condition for allowance. Applicants submit that claims 11-13, 15 and 17-18 are therefore allowable by virtue of their dependence on an allowable independent claim, as well as by virtue of the features recited therein. Applicants therefore respectfully request allowance of these claims.

Claim 38 recites an apparatus combination including a die mounted on a substrate, the die being connected to the substrate by a plurality of wires, and a mold cap encapsulating the die and the plurality of wires, the mold cap comprising an electrically insulating portion encapsulating substantially only the wires and “a thermally conductive portion encapsulating the die and the electrically insulating portion that encapsulates the wires.” By analogy to the discussion above for claim 1, Applicants submit that LoBianco does not disclose every element and limitation of this claim and therefore cannot anticipate the claim. Applicants therefore respectfully request withdrawal of the rejection and allowance of the claim.

Regarding claims 39 and 41, if an independent claim is allowable, then any claim depending therefrom is also allowable. *See, e.g.*, MPEP § 2143.03; *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). As discussed above, claim 38 is in condition for allowance. Applicants submit that claims 39 and 41 are therefore allowable by virtue of their dependence on an allowable

independent claim, as well as by virtue of the features recited therein. Applicants therefore respectfully request allowance of these claims.

Claim 44 recites an apparatus combination including a stack of dies mounted on a substrate and a mold cap encapsulating the wires and the stacked dies, the mold cap comprising an electrically insulating portion encapsulating substantially all the wires and the stack of dies and “a thermally conductive portion encapsulating substantially all of the electrically insulating portion.” By analogy to the discussion above for claim 1, LoBianco does not disclose every element and limitation of the claim, and therefore cannot anticipate the claim. Applicants therefore respectfully request withdrawal of the rejection and allowance of the claim.

Regarding claims 45-47, if an independent claim is allowable, then any claim depending therefrom is also allowable. *See, e.g.*, MPEP § 2143.03; *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). As discussed above, claim 44 is in condition for allowance. Applicants submit that claims 45-47 are therefore allowable by virtue of their dependence on an allowable independent claim, as well as by virtue of the features recited therein. Applicants therefore respectfully request allowance of these claims.

Rejections Under 35 U.S.C. § 103

The Examiner rejected claims 4, 6, 9, 14, 16, 29, 39-40, 42-43 and 48-51 under 35 U.S.C. § 103(a) as obvious in view of, and therefore unpatentable over, LoBianco in view of U.S. Patent No. 6,309,915 to DiStefano (“DiStefano”). Applicants respectfully traverse the Examiner’s rejections. If an independent claim is non-obvious under 35 U.S.C. § 103, then any claim depending therefrom is also non-obvious. MPEP § 2143.03; *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). As discussed above, independent claims 1, 10, 38 and 44 are in condition for allowance. Applicants submit that claims 4, 6, 9, 14, 16, 29, 39-40, 42-43 and 48-51 are therefore allowable by virtue of their dependence on allowable independent claims, as well as by virtue of the features recited therein. Applicants therefore respectfully request withdrawal of the rejections and allowance of these claims.

Conclusion

Given the above amendments and accompanying remarks, all claims pending in the application are in condition for allowance. If the undersigned attorney has overlooked a teaching in any of the cited references that is relevant to allowance of the claims, the Examiner is requested to specifically point out where such teaching may be found. Further, if there are any informalities or questions that can be addressed via telephone, the Examiner is encouraged to contact the undersigned attorney at (206) 292-8600.

Charge Deposit Account

Please charge our Deposit Account No. 02-2666 for any additional fee(s) that may be due in this matter, and please credit the same deposit account for any overpayment.

Respectfully submitted,

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Date: 12-9-04


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